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Laboratory on Mt. Wrangell

NYU—University of Alaska Project

Mt. Wrangell, a fourteen thousand-foot mountain in the interior of Alaska southeast of Fairbanks, will be the site of a scientific research station if an expedition now in progress is successful. Under the joint leadership of Serge A. Korff, professor of physics at New York University, and Terris Moore, president of the University of Alaska, a group of physicist-mountaineers from both institutions is attempting to establish a laboratory at the summit for use in studies of cosmic rays, high altitude biology, meteorology, and other fields requiring facilities at high altitudes. A far-northern station such as this will be of especial importance in investigations of the latitude effect in cosmic radiation.

The headquarters of the expedition are at Copper Center, a town on the Richardson Highway 42 miles west of Mt. Wrangell. According to announced plans, the mountain was first to be climbed on foot, with the U. S. Air Force subsequently parachuting supplies and equipment for building huts to the summit. Attempts are to be made by Dr. Moore, an expert bush pilot, to land a light plane on the side of the mountain itself as close to the top as possible in order to bring in scientific equipment too delicate or valuable to be dropped by parachute. As envisioned at the start of the expedition, the completed station would consist of two 16-by-16-foot huts and some storage tents, with several kilowatts of power available from a suitable generator and accommodations for about four scientists and their equipment. If conditions permit, some cosmic-ray measurements will be made there this summer.

In addition to Drs. Korff and Moore the physicist members of the party include Arthur Beiser, who handled many of the details of the project, Hugo Neuberg, and Robert Haymes, all of NYU, and Philip C. Bettler and Charles Wilson of the University of Alaska. The expedition is partly financed by the Office of Naval Research under a contract with the NYU cosmic-ray project.

Guggenheim Fellowships

Twelve Awarded in Physics

191 fellowships have been awarded for 1953 by the John Simon Guggenheim Memorial Foundation, with the accompanying grants totaling \$780,000. The fellowships, established in 1925 by the late Simon Guggenheim, are in thirty-eight categories ranging from poetry to microbiology. The following physicists received awards: Robert K. Adair, University of Wisconsin, for a study of the low lying excited states of heavy nuclei; J. G. Daunt, Ohio State University, for studies in

the field of low-temperature physics; Martin Deutsch, Massachusetts Institute of Technology, for a study of nuclear transitions and radiations; Henry A. Fairbank, Yale University, for studies of the superfluidity of liquid helium at very low temperatures; Bernard T. Feld, MIT, for researches into the interactions involved in the production of mesons by nucleons and by electromagnetic radiation; Leonard H. Hall, University of California, Santa Barbara, for a theoretical calculation of acoustic relaxation times in liquids; Peter Havas, Lehigh University, for studies in the relativistic theory of interacting elementary particles; Wayne E. Hazen, University of Michigan, for studies of *V*-particles in the cosmic-ray group; George Jura, U. C., Berkeley, for studies of the physics of the solid state; Charles K. McLane, University of Wisconsin, for studies of the properties of matter at demagnetization temperatures; A. J. F. Siegert, Northwestern University, for investigations in the field of statistical mechanics and random processes; and Samuel Siver, U. C., Berkeley, for studies on the diffraction of electromagnetic waves by apertures in an infinite plane sheet.

AEC Contracts

For Unclassified Physical Research

The Atomic Energy Commission has awarded thirty-seven contracts for unclassified basic research in the physical sciences to universities and private research institutions so far this year. Among those in physics are: Case Institute of Technology (R. S. Shankland and E. F. Shrader), "Study of Gamma Ray Spectrums Produced from a 30 Mev Betatron"; Rensselaer Polytechnic Institute (W. A. McKinley), "Fast Coincidence Techniques and Beta Ray Spectroscopy"; Johns Hopkins University (S. S. Hanna), "Fast Neutron Cross-Section Measurements"; Bausch and Lomb Optical Co. (N. J. Kreidl), "Irradiation Damage to Glass"; Princeton University (M. G. White), "Nuclear Research Using 17 Mev Cyclotron—Scope II"; Washington University (J. W. Kennedy), "Generation of High Voltages by Means of Nuclear Radiations"; University of Wisconsin (D. A. Lind), "Inelastic Scattering of Fast Neutrons"; and Case Institute of Technology (E. Shrader), "Reactor Studies".

Visiting Foreign Scientists

Information on Travel Plans

The Office of International Relations of the National Academy of Sciences—National Research Council has circulated a bulletin giving information on the interests and itineraries of foreign scientists and engineers visiting the United States. A number of the visitors listed in the first issue of this bulletin are in fields touching on physics: Dr. I. G. C. Dryden, head, Chemistry and Physics Section, British Coal Utilization Research Association, will be here from August 28 to September 30 and attend the Gordon Research Conference on Coal August 31–September 3. His address is c/o U. K. Sci-

entific Mission, 1800 K Street NW, Washington, D. C. Mr. J. W. Boag, Radiotherapeutic Research Unit, Medical Research Council, U. K., will spend a year working on physical problems in radiology with Dr. U. Fano at NBS. Miss E. J. Hanson, Biophysics Research Unit, Medical Research Council, U. K., is spending a year here under a Rockefeller Foundation fellowship and is to work with K. R. Porter of the Rockefeller Institute for Medical Research from August 1953 to February 1954.

Miscellany

The President's proposal for reorganizing the Department of Defense, made public on April 30th, calls for the abolition of the Department's Research and Development Board and for the transfer of its functions to the Secretary of Defense. Terming the organizational arrangement of the RDB "too slow and too clumsy" to serve as an effective management tool for the Secretary, President Eisenhower indicated that its functions would ultimately be assigned to one of several new Assistant Secretaries of Defense to be appointed to the Department. "The abolition of the present statutory staff agencies," the President said, "and the provision of the new Assistant Secretaries to aid the Secretary of Defense will be the key to the attainment of increased effectiveness at low cost in the Department of Defense."

Secretary of Defense Charles E. Wilson, in an appearance before a Senate appropriations subcommittee on June 8th, was questioned on the adequacy of funds for research under the Administration's program for reducing the amount of new Air Force appropriations by five billion dollars. Mr. Wilson was reported to have observed that if the U. S. still lags behind in jet planes, it was the fault of the previous Democratic administration because "pitifully little" was spent on research in the late 1940's and in the spring of 1950. Mr. Wilson was variously quoted by the press as saying that "research" covered a multitude of stupid projects and that he was cutting funds for "pure" research, as commenting that "the scientists talk a lot about pure research", and as recalling that former General Motors official Charles F. Kettering had his own definition for pure science: if successful, it could not be of any possible use to the people who put up the money for it—that made it pure. Mr. Wilson was further quoted as remarking, "I am not interested, as a military project, in why potatoes turn brown when they are fried", and, upon being asked to select a rather more appropriate field of research in which results were unpromising, as mentioning the case of the atomic-powered aircraft where "If everything worked out as the scientists planned, it would have been a bum airplane".

Funds for military research and development are to be reduced by another twenty-five percent in addition to cuts already made in the Truman recommendations for the 1954 fiscal year. Mr. Truman had asked for a

Defense Department research appropriation of \$1.6 billion, which was later reduced to \$1.3 billion in President Eisenhower's recommendation to Congress. New orders issued to the armed services by Mr. Wilson in June call for a revised figure of \$975 million, of which no more than half is to be spent during the first six months of the fiscal year beginning July 1st. Each of the military services has been required to submit lists of its expendable and its nonexpendable research projects to the Secretary.

Atomic Energy Commissioner Henry D. Smyth, in a commencement address prepared for delivery at Case Institute of Technology on June 4th, discussed some of the modern relationships between science, industry, and Government. "Today," he said, "progress in many of our largest industries is directly dependent upon the work of engineers and scientists either in industrial research laboratories or in universities. The scientist in his laboratory has replaced the inventor in his workshop as the primary source of technological development. This trend has certainly been accentuated by two world wars with their tremendous emphasis on advancing the technology of war regardless of expense, but I believe the trend was already there and will continue. The disappearance of the gap between the research laboratory and the application of science to industry means that the successful industrial leaders of the future must understand engineering and scientific methods, preferably from training in one of these disciplines." As an outstanding example of the narrowing gap between scientific discoveries and their industrial applications, he pointed to the atomic energy industry which, he said, "has developed from ideas and experiments in physics laboratories in 1939 until in 1953, only fourteen years later, it is an industry larger—at least in plant investment—than U. S. Steel and General Motors combined."

National Science Foundation prospects for the next fiscal year appear brighter than ever before, even though the \$15 million NSF appropriation requested by the previous administration was cut to about \$12 million in the Budget Bureau's report. The House of Representatives Appropriations Committee has approved \$5.7 million and the Senate Committee has called for \$10 million. A compromise figure promises to be nearly twice as large as the \$4.75 million authorized for current NSF operations. Identical bills (S. 977 and H. R. 4689) have been introduced in both Senate and House to raise the limit of \$15 million allowed under the National Science Foundation Act.

Notes from Abroad

Construction of a nuclear reactor by the West German chemical industries in cooperation with the Bonn Government has been urged by W. A. Menne, president of the Association of Chemical Industries, according to a dispatch to *The New York Times* dated April 29th. Claiming that more than two hundred